

TECHNICAL WORK MAY NOT BEGIN PRIOR TO CTR ACCEPTANCE

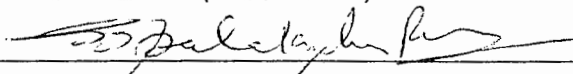
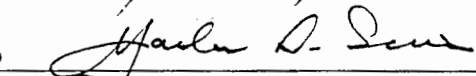

NASA/GODDARD SPACE FLIGHT CENTER

REQUEST FOR TASK PLAN / TASK ORDER

CONTRACTOR	CONTRACT NO./TASK NO.	JOB ORDER NUMBER	APPROP. FY
QSS Group, Inc.	NAS5- 99124 TASK NO. 361 AMENDMENT	563-632-10-11-89	00

TASK TITLE: (NTE 80 characters; include Project name)

Li-Ion Cell Study

APPROVALS: (Type or print name and sign)					
ASSISTANT TECHNICAL REPRESENTATIVE (OR TASK MONITOR)		DATE	ORG CODE	MAIL CODE	PHONE
Gopal Rao 		9/7/00	563	563	301-286-6654
Marlon Enciso 		9/8/00	563		301-286-5845
CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE (COTR)		DATE	CODE	PHONE	
Bob Lebar 		9/9/00	560	301-286-6588	
FLIGHT HARDWARE, CRITICAL GSE OR SOFTWARE? (IF YES, NEED CODE 303 CONCURRENCE NEXT BLOCK)		CONTRACTING OFFICER'S QUALITY REP.		DESIGNATED FAM:	
<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES		Larry Moore			

The contractor shall identify and explain the reason for any deviations, exceptions, or conditional assumptions taken with respect to this Task Order or to any of the technical requirements of the Task Order Statement of Work and related specifications. The contractor shall complete and submit the required Reps and Certs.	(To be completed by Contracting Officer) C.O. Requested Quote on: Date:
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Contractor will develop specification or statement of work under this task for a future procurement.	<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES
Flight hardware will be shipped to GSFC for testing prior to final delivery.	<input type="checkbox"/> NO <input type="checkbox"/> YES <input checked="" type="checkbox"/> N/A
Government Furnished Property/Facilities:	<input type="checkbox"/> NO <input checked="" type="checkbox"/> YES - SEE LIST OF GFP (offsite only) / FACILITIES (onsite only)
Onsite Performance:	<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES If yes: <input type="checkbox"/> TOTAL <input type="checkbox"/> PARTIAL If partial, indicate onsite work in SOW by asterisk (*)
Surveillance Plan Attached:	<input checked="" type="checkbox"/> NO <input type="checkbox"/> YES
Highlighted Contract Clauses:	(to be completed by Contracting Officer)

Per Clause H.14, Task Ordering Procedure, subparagraph (f), the effective date of this task order shall be 9/12/00.

INCENTIVE FEE STRUCTURE (check one)

	No. 1	<input checked="" type="checkbox"/> No. 2	No. 3	No. 4	No. 5
Cost	10%	50%	25%	25%	%
Schedule	15%	25%	25%	50%	%
Technical	75%	25%	50%	25%	%

(To be completed by Contracting Officer)

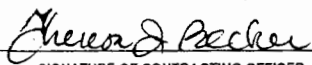
The target cost of this task order is \$ 40,806.

The target fee of this task order is \$ 211.

The total target cost and target fee of this task order as contemplated by the Incentive Fee clause of this contract is \$ 41,017.

The maximum fee is \$ 309.

The minimum fee is \$0.

AUTHORIZED SIGNATURE:		
THIS TASK ASSIGNMENT IS ISSUED ACCORDING TO THE CONTRACT CLAUSE "TASK ASSIGNMENTS AND REPORTS"		
	<u>10/4/00</u>	<u>Theresa J. Becker</u>
SIGNATURE OF CONTRACTING OFFICER	DATE	TYPED NAME OF CONTRACTING OFFICER

CONTRACTOR'S ACCEPTANCE:	
_____	_____
AUTHORIZED SIGNATURE	DATE

TECHNICAL WORK MAY NOT BEGIN PRIOR TO CO APPROVAL

NASA/GODDARD SPACE FLIGHT CENTER

REQUEST FOR TASK PLAN / TASK ORDER**CONTRACTOR****CONTRACT NO./TASK NO.****TASK NO.****AMENDMENT**

QSS Group, Inc.

NAS5-
99124**361**

Applicable paragraphs from contract Statement of Work:

Function 2.D.7

STATEMENT OF WORK: (Continue on blank paper if additional space is required)

The contractor shall provide services to study the lithium-ion cell thermal behavior and life cycle performance.

The Lithium-Ion Cells to be tested are: eight (8) 12 Ah from SAFT, eight (8) 20 Ah from YTP, and eight (8) 10 Ah from MSA. These cells will be provided by GSFC as GFE items.

The contractor shall provide the following services:

Perform initial acceptance test only on MSA cells

- Provide cell capacities at 25, 10 and 0 degrees C.
- Perform Charge retention test at 25 degrees C.

After completion of the acceptance testing, the contractor shall present electrical performance data from the initial acceptance test to ATR and /or his representative.

On one(1) MSA cell perform calorimetric analysis at -10, 20 and 40 degrees C

Assemble eight (8) cell series test pack from MSA cells

Perform about 1000 LEO cycles at 40 percent Depth-of-Discharge and 20 degrees C

Perform additional 1000 LEO cycles at 40 percent Depth-of-Discharge and 20 degrees C on 8-Cell SAFT and YTP packs.

- Test orbit shall be 90 minutes: 60 minutes Charge and 30 minutes discharge
- Clamp the voltage during the charge and provide a minimum of 15 minutes trickle charge

The contractor shall notify the ATR of any cell failure within 48 hours of such a failure by email at grao@gsfc.nasa.gov or FAX at (301)286-1751.

The contractor shall prepare a written corrective action plan after such a failure, and submit it to ATR within 72 hours of the failure.

The contractor shall email or fax a typical orbit data weekly to ATR.

Upon completion of calorimetry and the cycling test, the contractor shall submit a written final report to the ATR within 21 days.

PERFORMANCE SPECIFICATIONS:

All plans and testing under this task are to be produced and performed using aerospace test standards and practice.

APPLICABLE DOCUMENTS:

Lithium-Ion Test Plan by Gopal Rao, Code 563, GSFC

TASK END DATE:

11/30/00

MILESTONES/DELIVERABLES AND DATES:

Initial Acceptance Test Data Report	Within 72 hours of the completion of testing
Calorimetry Report	Within 21 days of the completion of testing
One orbit data	Weekly
Status Report	After one thousand Orbits on each pack
Cell Failure Notification	Within 48 hours of such a failure
Corrective Action Plan	Within 72 hours of the failure
Final Cycling Test Report	Within 21 days of the completion of testing

PERFORMANCE STANDARDS:

Schedule:	On-time delivery/completion of the deliverables/milestones
Technical:	ATR's acceptance of the above

FINAL DELIVERY DESTINATION (NAME, BLDG, ROOM):

Gopal Rao, building 20, room 166